## **AMENDMENTS TO THE CLAIMS:**

The listing of claims will replace all prior versions, and listings of claims in the application:

## LISTING OF THE CLAIMS

1. (Currently amended) A lighting apparatus for emitting white light comprising:

a semiconductor light source emitting radiation having a peak emission in the UV; and

a phosphor composition radiationally coupled to the light source, the phosphor composition comprising  $(Sr,Ba,Ca)_2SiO_4$ :Eu, one or more garnet phosphors having the general formula  $(Y,Gd,La,Lu,T,Pr,Sm)_3(AI,Ga,In)_5O_{12}$ :Ce, and at least one of phosphor selected from the group consisting of  $(Sr,Mg,Ca,Ba,Zn)_2P_2O_7$ :Eu,Mn;  $(Ca,Sr,Ba,Mg)_5(PO_4)_3(CI,F,OH)$ :Eu,Mn;  $(Sr,Ba,Ca)MgAI_{10}O_{17}$ :Eu,Mn; and/or  $Mg_4FGeO_6$ :Mn<sup>4+</sup>.

- (Original) The lighting apparatus of claim 1, wherein the light source is an LED.
- 3. (Original) The lighting apparatus of claim 2, wherein the LED comprises a nitride compound semiconductor represented by the formula  $In_iGa_jAl_kN$ , where  $0 \le i$ ;  $0 \le j$ ,  $0 \le K$ , and i + j + k = 1.
- 4. (Original) The lighting apparatus of claim 1, wherein the light source is an organic emissive structure.
- 5. (Original) The lighting apparatus of claim 1, wherein the phosphor composition is coated on the surface of the light source.
- 6. (Original) The lighting apparatus of claim 1, further comprising an encapsulant surrounding the light source and the phosphor composition.

- 7. (Original) The lighting apparatus of claim 1, wherein the phosphor composition is dispersed in the encapsulant.
- 8. (Original) The lighting apparatus of claim 1, further comprising a reflector cup.
- 9. (Original) The lighting apparatus of claim 1, wherein said phosphor composition comprises (Sr<sub>0.95</sub>Ba<sub>0.025</sub>Eu<sub>0.025</sub>)<sub>2</sub>SiO<sub>4</sub>.
- 10. (Original) The lighting apparatus of claim 1, wherein said phosphor composition comprises (Sr<sub>0.58</sub>Ca<sub>0.36</sub>Eu<sub>0.06</sub>)<sub>2</sub>SiO<sub>4</sub>.
- 11. (Original) The lighting apparatus of claim 10, wherein said apparatus has a color point with a ccx value of 0.5286 and a ccy value of 0.4604.
- 12. (Original) The lighting apparatus of claim 1, wherein said phosphor composition further comprises one or more additional phosphor.
- The lighting apparatus of claim 12, wherein said (Previously presented) 13. one or more additional phosphors are selected from the group consisting of (Ba,Sr,Ca)<sub>5</sub>(PO<sub>4</sub>)<sub>3</sub>(CI,F,Br,OH):Eu<sup>2+</sup>,Mn<sup>2+</sup>,Sb<sup>3+</sup>; (Ba,Sr,Ca)BPO<sub>5</sub>:Eu<sup>2+</sup>,Mn<sup>2+</sup>; (Ba,Sr,Ca)MgAl<sub>10</sub>O<sub>17</sub>:Eu<sup>2+</sup>,Mn<sup>2+</sup>; 2SrO\*0.84P<sub>2</sub>O<sub>5</sub>\*0.16B<sub>2</sub>O<sub>3</sub>:Eu<sup>2+</sup>;  $(Sr,Ca)_{10}(PO_4)_6*nB_2O_3:Eu^{2+};$  $Sr_2Si_3O_{8^22}SrCl_2$ : $Eu^{2^+}$ ;  $Ba_3MgSi_2O_8$ : $Eu^{2^+}$ ;  $Sr_4Al_{14}O_{25}$ : $Eu^{2^+}$ ;  $BaAl_8O_{13}$ : $Eu^{2^+}$ ;  $2SrO_{12}$ : $Eu^{2^+}$ ;  $2SrO_{13}$ : $0.84P_2O_{5\text{-}0.16}B_2O_3:Eu^{2+}; \ (Ba,Sr,Ca)Al_2O_4:Eu^{2+}; \ (Y,Gd,Lu,Sc,La)BO_3:Ce^{3+},Tb^{3+}; \\ (Ba,Sr,Ca)Al_2O_4:Eu^{2+}; \ (Y,Gd,Lu,Sc,La)BO_3:Ce^{3+}; \\ (Ba,Sr,Ca)Al_2O_4:Eu^{2+}; \ (Y,Gd,Lu,Sc,La)BO_3:Ce^{3+}; \\ (Ba,Sr,Ca)Al_2O_4:Eu^{2+}; \ (Y,Gd,Lu,Sc,La)BO_3:Ce^{3+}; \\ (Ba,Sr,Ca)Al_2O_4:Eu^{2+}; \\ (Ba,Sr,Ca)Al_2O_4:Eu^{2+}; \ (Y,Gd,Lu,Sc,La)BO_3:Ce^{3+}; \\ (Ba,Sr,Ca)Al_2O_4:Eu^{2+}; \\ (Ba,Sr,Ca)Al_2O_4:Eu^$ (Sr,Ca,Ba)(Al,Ga,In)<sub>2</sub>S<sub>4</sub>:Eu<sup>2+</sup>;  $(Ba,Sr,Ca)_2(Mg,Zn)Si_2O_7:Eu^{2+};$ (Y,Gd,Tb,La,Sm,Pr,Lu)<sub>3</sub>(Al,Ga)<sub>5</sub>O<sub>12</sub>:Ce<sup>3+</sup>;  $(Ca,Sr)_8(Mg,Zn)(SiO_4)_4Cl_2$ :  $Na_2Gd_2B_2O_7:Ce^{3+},Tb^{3+};$  (Ba,Sr)<sub>2</sub>(Ca,Mg,Zn)B<sub>2</sub>O<sub>6</sub>:K,Ce,Tb; Eu<sup>2+</sup>.Mn<sup>2+</sup>:  $(Sr,Ca,Ba,Mg,Zn)_2P_2O_7:Eu^{2+},Mn^{2+};$   $(Ca,Sr,Ba,Mg)_{10}(PO_4)_6(F,CI,Br,OH):$  $Eu^{2+},Mn^{2+};$   $(Gd,Y,Lu,La)_2O_3:Eu^{3+},Bi^{3+};$   $(Gd,Y,Lu,La)_2O_2S:Eu^{3+},Bi^{3+};$  $(Gd,Y,Lu,La)VO_4:Eu^{3+},Bi^{3+}; \quad (Ca,Sr)S:Eu^{2+}; \quad SrY_2S_4:Eu^{2+}; \quad CaLa_2S_4:Ce^{3+};$  $(Ca,Sr)S:Eu^{2+}; 3.5MgO*0.5MgF_2*GeO_2:Mn^{4+}; (Ba,Sr,Ca)MgP_2O_7:Eu^{2+},Mn^{2+};$  $(Y,Lu)_2WO_6:Eu^3+, Mo^{6+}; (Ba,Sr,Ca)_xSi_vN_z:Eu^{2+}.$

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14. (Previously presented) A lighting apparatus for emitting white light comprising:

a UV light source emitting radiation having a peak emission in the UV range; and

a phosphor composition radiationally coupled to the light source, the phosphor composition comprising  $(Sr,Ba,Ca)_2SiO_4$ :Eu, one or more garnet phosphors having the general formula  $(Y,Gd,La,Lu,T,Pr,Sm)_3(Al,Ga,In)_5O_{12}$ :Ce and a magnesium fluorogermanate phosphor having the formula  $Mg_4FGeO_6$ : $Mn^{4+}$ .

- 15. (Original) The lighting apparatus of claim 14, wherein the light source is a semiconductor LED.
- 16. (Original) The lighting apparatus of claim 14, wherein the LED comprises a nitride compound semiconductor represented by the formula  $In_iGa_jAI_kN$ , where  $0 \le i$ ;  $0 \le j$ ,  $0 \le K$ , and i + j + k = 1.
- 17. (Original) he lighting apparatus of claim 14, wherein said light source is an organic emissive structure.
- 18. (Original) The lighting apparatus of claim 14, wherein the phosphor composition is coated on the surface of the light source.
- 19. (Original) The lighting apparatus of claim 14, further comprising an encapsulant surrounding the light source and the phosphor composition.
- 20. (Original) The lighting apparatus of claim 14, wherein the phosphor composition is dispersed in the encapsulant.
- 21. (Original) The lighting apparatus of claim 14, further comprising a reflector cup.

- 22. (previously presented) The lighting apparatus of claim 14, wherein said (Sr,Ba,Ca)<sub>2</sub>SiO<sub>4</sub>:Eu phosphor comprises (Sr<sub>0.95</sub>Ba<sub>0.025</sub>Eu<sub>0.025</sub>)<sub>2</sub>SiO<sub>4</sub>.
- 23. (Original) The lighting apparatus of claim 14, wherein said phosphor composition comprises (Sr<sub>0.58</sub>Ca<sub>0.36</sub>Eu<sub>0.06</sub>)<sub>2</sub>SiO<sub>4</sub>.
- 24. (Original) The lighting apparatus of claim 23, wherein said apparatus has a color point with a ccx value of 0.5286 and a ccy value of 0.4604.
- 25. (Original) The lighting apparatus of claim 14, wherein said phosphor composition further comprises one or more additional phosphors.
- The lighting apparatus of claim 25, wherein said (Previously Presented) 26. one or more additional phosphors are selected from the group consisting of (Ba,Sr,Ca)<sub>5</sub>(PO<sub>4</sub>)<sub>3</sub>(Cl,F,Br,OH):Eu<sup>2+</sup>,Mn<sup>2+</sup>,Sb<sup>3+</sup>; (Ba,Sr,Ca)BPO<sub>5</sub>:Eu<sup>2+</sup>,Mn<sup>2+</sup>; (Ba.Sr.Ca)MgAl<sub>10</sub>O<sub>17</sub>:Eu<sup>2+</sup>,Mn<sup>2+</sup>; 2SrO\*0.84P<sub>2</sub>O<sub>5</sub>\*0.16B<sub>2</sub>O<sub>3</sub>:Eu<sup>2+</sup>;  $(Sr,Ca)_{10}(PO_4)_6*nB_2O_3:Eu^{2+};$  $Sr_2Si_3O_{8^22}SrCl_2:Eu^{2^+}; Ba_3MgSi_2O_8:Eu^{2^+}; Sr_4Al_{14}O_{25}:Eu^{2^+}; BaAl_8O_{13}:Eu^{2^+}; 2SrO_{12}:Eu^{2^+}; Ba_3MgSi_2O_{13}:Eu^{2^+}; 2SrO_{13}:Eu^{2^+}; 2SrO_{13}$ 0.84P<sub>2</sub>O<sub>5-0.16</sub>B<sub>2</sub>O<sub>3</sub>:Eu<sup>2+</sup>; (Ba,Sr,Ca)Al<sub>2</sub>O<sub>4</sub>:Eu<sup>2+</sup>; (Y,Gd,Lu,Sc,La)BO<sub>3</sub>:Ce<sup>3+</sup>,Tb<sup>3+</sup>; (Sr,Ca,Ba)(Al,Ga,In)<sub>2</sub>S<sub>4</sub>:Eu<sup>2+</sup>;  $(Ba,Sr,Ca)_2(Mg,Zn)Si_2O_7:Eu^{2+};$ (Y,Gd,Tb,La,Sm,Pr,Lu)<sub>3</sub>(Al,Ga)<sub>5</sub>O<sub>12</sub>:Ce<sup>3+</sup>;  $(Ca,Sr)_8(Mg,Zn)(SiO_4)_4Cl_2$ :  $Eu^{2+}.Mn^{2+}$ : Na<sub>2</sub>Gd<sub>2</sub>B<sub>2</sub>O<sub>7</sub>:Ce<sup>3+</sup>,Tb<sup>3+</sup>; (Ba,Sr)<sub>2</sub>(Ca,Mg,Zn)B<sub>2</sub>O<sub>6</sub>:K,Ce,Tb;  $(Sr,Ca,Ba,Mg,Zn)_2P_2O_7:Eu^{2+},Mn^{2+};$   $(Ca,Sr,Ba,Mg)_{10}(PO_4)_6(F,Cl,Br,OH):$  $Eu^{2+}$ , $Mn^{2+}$ ; (Gd,Y,Lu,La)<sub>2</sub>O<sub>3</sub>: $Eu^{3+}$ ,Bi<sup>3+</sup>; (Gd,Y,Lu,La)<sub>2</sub>O<sub>2</sub>S: $Eu^{3+}$ ,Bi<sup>3+</sup>;  $(Gd,Y,Lu,La)VO_4:Eu^{3+},Bi^{3+}; \quad (Ca,Sr)S:Eu^{2+}; \quad SrY_2S_4:Eu^{2+}; \quad CaLa_2S_4:Ce^{3+};$  $(Ca.Sr)S:Eu^{2+}; 3.5MgO*0.5MgF<sub>2</sub>*GeO<sub>2</sub>:Mn<sup>4+</sup>; (Ba,Sr,Ca)MgP<sub>2</sub>O<sub>7</sub>:Eu<sup>2+</sup>,Mn<sup>2+</sup>;$  $(Y,Lu)_2WO_6:Eu^3+, Mo^{6+}; (Ba,Sr,Ca)_xSi_vN_z:Eu^{2+}.$
- 27. (Currently amended) A lighting apparatus for emitting white light comprising:
  - a semiconductor light source emitting radiation having a peak emission in the UV range; and
  - a phosphor composition radiationally coupled to the light source, the phosphor composition comprising (Sr,Ba,Ca)<sub>2</sub>SiO<sub>4</sub>:Eu, and <u>one or more</u>

additional phosphors, one or more of  $(Sr,Mg,Ca,Ba,Zn)_2P_2O_7$ : Eu,Mn;  $(Ca,Sr,Ba,Mg)_5(PO_4)_3(Cl,F,OH)$ : Eu,Mn;  $(Sr,Ba,Ca)MgAl_{40}O_{47}$ : Eu,Mn; and  $Mg_4FGeO_6$ :  $Mn^{4+}$ ; wherein said  $(Sr,Ba,Ca)_2SiO_4$ : Eu phosphor comprises  $(Sr_{0.95}Ba_{0.025}Eu_{0.025})_2SiO_4$ ,  $(Sr_{0.58}Ca_{0.36}Eu_{0.06})_2SiO_4$ , or blends thereof.

- 28. (Original) The lighting apparatus of claim 27, wherein the light source is a semiconductor LED.
- 29. (Original) The lighting apparatus of claim 27, wherein the LED comprises a nitride compound semiconductor represented by the formula  $In_iGa_jAl_kN$ , where  $0 \le i$ ;  $0 \le j$ ,  $0 \le K$ , and i + j + k = 1.
- 30. (Original) The lighting apparatus of claim 27, wherein said light source is an organic emissive structure.
- 31. (Original) The lighting apparatus of claim 27, wherein the phosphor composition is coated on the surface of the light source.
- 32. (Original) The lighting apparatus of claim 27, further comprising an encapsulant surrounding the light source and the phosphor composition.
- 33. (Original) The lighting apparatus of claim 27, wherein the phosphor composition is dispersed in the encapsulant.
- 34. (Original) The lighting apparatus of claim 27, further comprising a reflector cup.
- 35. (Canceled)
- 36. (Canceled)
- 37. (Currently amended) The lighting apparatus of claim <u>27</u> <del>36</del>, wherein said apparatus has a color point with a ccx value of 0.5286 and a ccy value of 0.4604.

- 38. (Currently amended) The lighting apparatus of claim 27, wherein said phosphor composition <u>comprises one or more of (Sr,Mg,Ca,Ba,Zn)<sub>2</sub>P<sub>2</sub>O<sub>7</sub>:Eu,Mn; (Ca,Sr,Ba,Mg)<sub>5</sub>(PO<sub>4</sub>)<sub>3</sub>(Cl,F,OH):Eu,Mn; (Sr,Ba,Ca)MgAl<sub>10</sub>O<sub>17</sub>:Eu,Mn; and Mg<sub>4</sub>FGeO<sub>6</sub>:Mn<sup>4+</sup> further comprises one or more additional phosphors.</u>
- The lighting apparatus of claim 27 38, wherein said (Currently amended) 39. one or more additional phosphors are selected from the group consisting of (Ba,Sr,Ca)<sub>5</sub>(PO<sub>4</sub>)<sub>3</sub>(CI,F,Br,OH):Eu<sup>2+</sup>,Mn<sup>2+</sup>,Sb<sup>3+</sup>; (Ba.Sr.Ca)MgAI<sub>10</sub>O<sub>17</sub>:Eu<sup>2+</sup>,Mn<sup>2+</sup>; (Ba,Sr,Ca)BPO<sub>5</sub>:Eu<sup>2+</sup>,Mn<sup>2+</sup>; 2SrO\*0.84P<sub>2</sub>O<sub>5</sub>\*0.16B<sub>2</sub>O<sub>3</sub>:Eu<sup>2+</sup>;  $(Sr,Ca)_{10}(PO_4)_6*nB_2O_3:Eu^{2+};$ Sr<sub>2</sub>Si<sub>3</sub>O<sub>8\*2</sub>SrCl<sub>2</sub>:Eu<sup>2+</sup>; Ba<sub>3</sub>MgSi<sub>2</sub>O<sub>8</sub>:Eu<sup>2+</sup>; Sr<sub>4</sub>Al<sub>14</sub>O<sub>25</sub>:Eu<sup>2+</sup>; BaAl<sub>8</sub>O<sub>13</sub>:Eu<sup>2+</sup>; 2SrO- $0.84P_2O_{5\text{-}0.16}B_2O_3:Eu^{2^+}; \ (Ba,Sr,Ca)Al_2O_4:Eu^{2^+}; \ (Y,Gd,Lu,Sc,La)BO_3:Ce^{3^+},Tb^{3^+}; \\ (Ba,Sr,Ca)Al_2O_4:Eu^{2^+},Tb^{3^+}; \\ (Ba,Sr,C$  $(Sr,Ca,Ba)(Al,Ga,In)_2S_4:Eu^{2+};$  $(Ba,Sr,Ca)_2(Mg,Zn)Si_2O_7:Eu^{2+};$ (Y,Gd,Tb,La,Sm,Pr,Lu)₃(Al,Ga)₅O<sub>12</sub>:Ce<sup>3+</sup>;  $(Ca,Sr)_8(Mg,Zn)(SiO_4)_4Cl_2$ : Na<sub>2</sub>Gd<sub>2</sub>B<sub>2</sub>O<sub>7</sub>:Ce<sup>3+</sup>,Tb<sup>3+</sup>; (Ba,Sr)<sub>2</sub>(Ca,Mg,Zn)B<sub>2</sub>O<sub>6</sub>:K,Ce,Tb; Eu<sup>2+</sup>.Mn<sup>2+</sup>:  $(Sr,Ca,Ba,Mg,Zn)_2P_2O_7:Eu^{2+},Mn^{2+};$   $(Ca,Sr,Ba,Mg)_{10}(PO_4)_6(F,Cl,Br,OH):$  $(Gd,Y,Lu,La)_2O_3:Eu^{3+},Bi^{3+};$   $(Gd,Y,Lu,La)_2O_2S:Eu^{3+},Bi^{3+};$  $Eu^{2+}.Mn^{2+}$ :  $(Gd,Y,Lu,La)VO_4:Eu^{3+},Bi^{3+}; \quad (Ca,Sr)S:Eu^{2+}; \quad SrY_2S_4:Eu^{2+}; \quad CaLa_2S_4:Ce^{3+};$  $(Ca,Sr)S:Eu^{2+}; 3.5MgO*0.5MgF_2*GeO_2:Mn^{4+}; (Ba,Sr,Ca)MgP_2O_7:Eu^{2+},Mn^{2+};$  $(Y,Lu)_2WO_6:Eu^3+, Mo^{6+}; (Ba,Sr,Ca)_xSi_vN_z:Eu^{2+}.$
- 40. (Original) A phosphor blend including  $(Sr,Ba,Ca)_2SiO_4$ :Eu and at least one of  $(Sr,Mg,Ca,Ba,Zn)_2P_2O_7$ :Eu,Mn;  $(Ca,Sr,Ba,Mg)_5(PO_4)_3(Cl,F,OH)$ :Eu,Mn;  $(Sr,Ba,Ca)MgAl_{10}O_{17}$ :Eu,Mn;  $Mg_4FGeO_6$ :Mn<sup>4+</sup>; and one or more garnet phosphors having the general formula  $(Y,Gd,La,Lu,T,Pr,Sm)_3(Al,Ga,In)_5O_{12}$ :Ce.
- 41. (Original) The phosphor blend of claim 40 comprising  $(Sr_{0.95}Ba_{0.025}Eu_{0.025})_2SiO_4$ .
- 42. (Original) The phosphor blend of claim 40 comprising  $(Sr_{0.58}Ca_{0.36}Eu_{0.06})_2SiO_4$ .

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- 43. (Previously Presented) The phosphor blend of claim 40, wherein said phosphor blend is capable of absorbing the radiation emitted by a light source having a peak emission in the UV range and emitting radiation that, when combined with said radiation from said light source, produces white light.
- 44. (Canceled)
- 45. (previously presented) The lighting apparatus of claim 1, wherein said semiconductor light source has a peak emission at about 405 nm.
- 46. (New) A lighting apparatus for emitting white light comprising:

  a semiconductor light source emitting radiation having a peak
  emission in the UV; and

a phosphor composition radiationally coupled to the light source, the phosphor composition comprising  $(Sr,Ba,Ca)_2SiO_4$ :Eu, one or more garnet phosphors having the general formula  $(Y,Gd,La,Lu,T,Pr,Sm)_3(Al,Ga,In)_5O_{12}$ :Ce, and at least one phosphor selected from the group consisting of  $(Sr,Mg,Ca,Ba,Zn)_2P_2O_7$ :Eu,Mn;  $(Ca,Sr,Ba,Mg)_5(PO_4)_3(Cl,F,OH)$ :Eu,Mn; and  $(Sr,Ba,Ca)MgAl_{10}O_{17}$ :Eu,Mn.